Applicant respectfully requests reconsideration of this application as amended.

Claims 1-4, 6-8, 10, 11, 13, 17, 18, 20 and 23 have been amended. No claims have been

cancelled. Therefore, claims 1-4, 6-8, 10, 11, 13, 17, 18, 20, 21 and 23 are present for

examination.

35 U.S.C. §102 Rejection

Boatman et al.

The Examiner has rejected claims 1, 6-8, 10, 17-18 and 20-21 under 35 U.S.C.

§102(e) as being anticipated by Boatman et al., U.S. Patent No. 5,892,690 ("Boatman"). The

Applicant respectfully submits the following argument pointing out significant differences

between Boatman and claims 1, 6-8, 10, 17-18 and 20-21 of the present invention, as

amended.

Boatman discloses an environment monitoring system. According to the teaching of

Boatman, sensors monitor an environment, and they communicate the collected data to a

remote database for further analysis. Furthermore, the remote database monitors several

environments and does comparative data processing as well. In contrast, claim 1 of the

present invention requires one or more devices being monitored by a central computer that is

connected to a remote database. Thus, there is an analogy mismatch.

To properly analogize Boatman to the present invention, the environment would be

analogous to a device, the sensors, site controller, and data storage device would be

analogous to parts of the device that contain information about the device, and the remote

database would be analogous to the central computer of the present invention. Thus, Boatman does not teach or suggest connecting the central computer to a remote database.

The above analogy is proper, because sensors are not the same as the devices required by claim 1 of the present invention. The essential difference is in functionality. A sensor passively monitors a condition, such as air quality. A smart device, as the term is used in claim 1, has an active functionality, such as a refrigerator, which keeps food fresh, or a VCR, which records TV programming. These smart devices include "sensors" which monitor their performance. Thus, the smart devices are analogous to the environments in Boatman. Therefore, Boatman, while it teaches "a remote database," does not actually teach or suggest it in a manner analogous to the remote database as required by claim 1. The words may be the same, but the context is different, as explained above.

Furthermore, the sensors in Boatman collect and transmit sensor data. In contrast, claim 1 requires "collecting <u>usage information</u> from the one or more smart devices by a computer coupled to the one or more smart devices, <u>wherein usage information comprises statistical data regarding the specific use of the one of more smart devices</u>," (emphasis added). Thus, usage information relates to the functioning of the smart device. Some examples of usage information are given in the dependent claims as, e.g. how long a smart device has been in operation. In contrast, the sensors in Boatman do not collect information about themselves, e.g. how long they have been operation; they merely collect environmental data. Thus, Boatman does not teach or suggest collecting "usage information" as required by claim 1.

Furthermore, Boatman does not teach or suggest "transmitting a control signal from the computer to the one or more smart devices, the control signal being generated by the

computer based on the information received from the remote database, wherein the control signal functionally operates the one or more smart devices," as required by claim 1. First, the Examiner relies on the following section of Boatman to teach the above requirement: "For example, the data may be used to determine the frequency at which filtering devices, which are used to filter residues from the air, need to be changed." Col 4 Lines 12-15. Thus the monitoring system tells humans when to change the filters. The Examiner believes this teaches, "data collected by the remote databases is used to control data collection operations at the sensor devices." Page 4.

While on one level, the data collected is "used to control data collection," since, e.g. if air quality is low, the filters will need changing more often, this does not teach or suggest transmitting a control signal to affect the functioning of the smart devices, as required by claim 1. To demonstrate the difference, an exemplary smart device claimed by claim 1 could be an air filtering device which is monitored by a central computer, which accesses a remote database containing information about the filter, and using that information, the computer could calculate when the filter in the air filtering device would need changing, and the computer would send a control signal to the air filtering device which would cause it to change its own filter without human intervention. While the end result may be the same, i.e. filters were changed, the method of changing them is dramatically different, with the method of claim 1 clearly being more sophisticated.

Second, the Examiner cites Boatman at col 5 lines 37-50 to also teach the above quoted requirement of claim 1. The section referred to in Boatman merely points out that the processing of raw voltage on the sensors into air quality measurements can be performed at the remote database, thus centralizing calibration duties. This in no way teaches or suggests

transmitting a <u>control signal</u> to affect the functioning of the devices. First, there is no control signal transmitted to the sensors. Second, the calibration takes place at the remote database. Thus, Boatman does not anticipate claim 1, as amended. Independent claims 10 and 20 include similar limitations as claim 1, and are thus also not anticipated by Boatman based on the above argument. Claims 6-8, 17-18 and 21 are dependent on these independent claims and add further limitations. Thus, they are distinguishable over Boatman.

35 U.S.C. §102 Rejection

Colton et al.

The Examiner has rejected claims 1, 10 and 20 under 35 U.S.C. §102(e) as being anticipated by Colton et al., U.S. Patent No. 6,239,722 ("Colton"). The Applicant does not believe that Colton represents effective prior art to the present application because of Applicant's early date of invention. However, while making this statement, and reserving the right to swear behind Colton in the future, the Applicant chooses at this time to present arguments pointing out significant differences between claims 1, 10 and 20 of the present invention and Colton. Again, the Applicant makes no admission that Colton represents effective prior art against the present application and the Applicant reserves the right to swear behind Colton in the future.

Colton teaches a utility monitoring system for reading utility metering devices 40, such as gas meters, from a central location. Thus, the metering devices in Colton are analogous to the sensors in Boatman. The sensors measure air quality, and the metering devices measure electricity/gas consumption per environment. Therefore, the above

arguments set forth for Boatman apply to Colton. First, Colton does not teach or suggest collecting usage information in the same manner that Boatman does not teach or suggest it. The metering devices taught by Colton collect passive quantity measurements, not the type of smart device-functionality related usage information, e.g. how long the smart device has been in operation, required by claim 1.

Furthermore, Colton also does not teach or suggest "transmitting a control signal from the computer to the one or more devices, the control signal being generated by the computer based on the information received from the remote database, wherein the control signal functionally operates the one or more devices" (emphasis added), as required by claim 1. The Examiner relies on col 6 line 54 – col 7 line 18 of Colton to disclose the above requirement.

However, the referenced section only teaches that the utility company may communicate with its customers using the metering devices. The section also teaches providing communication-based services by using the metering devices, such as "outage restoral monitoring, and customer consumption readings on request." These services involve communication, but they do not teach or suggest transmitting a control signal to affect the functioning of the devices.

Sending data, in the form of a customer report, or monitoring a condition, such as an outage, does not teach or suggest a control signal the way that phrase is used in claim 1 of the present invention. The difference is easily demonstrated. The control signal in claim 1 would, for example, encompass a signal in a metering device monitoring system, which, would be sent by the remote facility upon detecting an outage condition, and which would cause power to be restored at the customer premises without human intervention. Even then,

the control signal would not be sent based on information from a remote database, so even such a signal may not fully anticipate claim 1. Colton, however, does not teach or disclose such a system with such a signal. Thus, Colton does not anticipate claim 1, as amended. Independent claims 10 and 20 include similar limitations as claim 1, and are therefore also distinguishable over Colton based on the above argument.

35 U.S.C. §103 Rejection

Boatman et al.

The Examiner has rejected claims 2-4, 11, 13 and 23 under 35 U.S.C. §103(a) as being unpatentable over Boatman. Since claims 2-4, 11, 13 and 23 are dependent on independent claims 1, 10, and 20, which, as amended, are not anticipated by any reference cited by the examiner, claims 2-4, 11, 13 and 23 are also allowable because they include all limitations of their respective base claims and add further limitations. Therefore, all claims remaining in the Application, as amended, are allowable.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

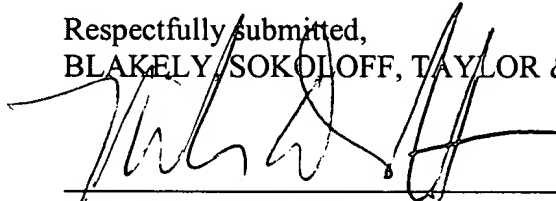## Request for an Extension of Time

Applicant respectfully petitions for a two-month extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. 1.136(a). Enclosed is a check in the amount of $400.00 to cover the necessary fee under 37 C.F.R. 1.17(a). Please charge our Deposit Account No. 02-2666 for any additional charge associated with such an extension.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 11/14/01

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<u>Version with Markings to Show Changes Made</u>
Insertions are underlined, deletions are bracketed.

<u>In the Specification</u>:

Please replace the paragraph beginning on page 1, line 18 with the following paragraph:

Controllers can communicate with controlled devices in a variety of ways. For example, a common communication method uses existing alternating current ("AC") power lines of a home to transmit signals to a control device. Many of these system use the X-10® standard code format manufactured by X-10 (USA) Inc., of Northvale, New Jersey. Controller modules use X-10® code format <u>to</u> transmit signals over the AC power line of a home through standard AC outlets. Other modes of communicating with a device include radio frequency (RF) transmission and infra red (IR) transmission.

In the claims:

1. (Amended) A method [for monitoring and controlling one or more devices in a common environment,] comprising:

collecting usage information, from [the] one or more smart devices in a common environment by a computer coupled to the one or more smart devices, wherein the usage information comprises statistical data regarding the specific use of the one of more smart devices;

storing the usage information in a memory associated with the computer;

periodically accessing a remote database by the computer, the remote database containing information specific to the one or more smart devices, the computer accessing the remote database to:

transmit the usage information to the remote database, and

receive the information specific to the one or more smart devices from the remote database; and

transmitting a control signal from the computer to the one or more smart devices, the control signal being generated by the computer based on the information received from the remote database, wherein the control signal functionally operates the one or more smart devices.

1   2.   (Amended) The method of claim 1, wherein the usage information

2   comprises <u>one or more of</u>:

3   an average length of time the one or more <u>smart</u> devices has been in operation

4   over a period of time;

5   a number of occasions the one or more <u>smart</u> devices has been in operation over

6   the period of time;

7   a number of times maintenance was performed on the one or more <u>smart</u> devices

8   over the period of time; and

9   types of maintenance operations that were performed on the one or more <u>smart</u>

10   devices over the period of time.

1   3.   (Amended) The method of claim 1, wherein the remote database is

2   accessed by the computer via an internet connection.

1   4.   (Amended) The method of claim 1, wherein the remote database is

2   accessed by the computer via a point-to-point connection between the computer and the

3   remote database.

1   6.   (Amended) The method of claim 1, further comprising:

2   updating the information contained in the remote database specific to the one or

3   more <u>smart</u> devices by a manufacturer of the one or more devices.

1   7.   (Amended) The method of claim 1, wherein the one or more <u>smart</u> devices

2   include at least one home appliance and wherein the common environment is a house.

1   8.   (Amended) The method of claim 1, wherein the one or more smart devices

2   comprise manufacturing equipment and wherein the common environment is a

3   manufacturing facility.

1   10.   (Amended) A computer readable medium having stored thereon

2   instructions, which, when executed, cause a computer to:

3   collect usage information from one or more smart devices operating in a common

4   environment , wherein the usage information comprises statistical data regarding the

5   specific use of the one of more smart devices;

6   store the usage information in a memory associated with the computer;

7   periodically access a remote database, wherein the remote database contains

8   information specific to the one or more smart devices;

9   transmit the usage information to the remote database;

10   receive the information specific to the one or more smart devices from the remote

11   database; and

12   transmitting a control signal from the computer to the one [ore] or more smart

13   devices, the control signal being generated by the computer based on the information

14   received from the remote database , wherein the control signal functionally operates the

15   one or more smart devices.

1   11.   (Amended) The computer readable medium of claim 10, wherein the

2   stored instructions, when executed, further cause the computer to:

3   receive an identifier of a <u>smart</u> device when the <u>smart</u> device is initially installed

4   in the common environment; and

5   store the identifier in such a way that it becomes associated with usage

6   information collected from the device.

1   13.   (Amended) The computer readable medium of claim 11, wherein the

2   usage information collected from the <u>smart</u> device comprises <u>one or more of</u>:

3   an average length of time the <u>smart</u> device has been in operation over a period of

4   [tim] <u>time</u>;

5   a number of occasions the <u>smart</u> device has been in operation over the period of

6   time;

.7   a number of times maintenance was performed on the <u>smart</u> device over the

8   period of time; and

9   types of maintenance operations that were performed on the <u>smart</u> device over the

10   period of time.

1   17.   (Amended) The computer readable medium of claim 10, wherein the one

2   or more <u>smart</u> devices include at least one home appliance and wherein the common

3   environment is a house.

1   18.   (Amended) The computer readable medium of claim 10, wherein the one

2   or more <u>smart</u> devices comprise manufacturing equipment and wherein the common

3   environment is a manufacturing facility.

1   20.   (Amended) A system [for automatically maintaining and controlling a

2   plurality of devices,] comprising:

3   a computer [control] <u>controller</u> having a memory, the computer controller being

4   coupled to each of [the] <u>a</u> plurality of <u>smart</u> devices <u>in a common environment</u>;

5   a remote database that contains sets of information specific to each of the <u>plurality of</u>

6   <u>smart</u> devices;

7   a transmission line coupled to the remote database and to the computer controller for

8   data transmissions therebetween; and

9   a software program stored in the memory, execution of the software program

10   directing the computer controller to periodically access the remote database to transmit usage

11   information received from the plurality of <u>smart</u> devices to the remote database <u>wherein the</u>

12   <u>usage information comprises statistical data regarding the specific use of the plurality of</u>

13   <u>smart devices</u>, and also to receive the sets of information specific to the <u>plurality of smart</u>

14   devices from the remote database, the software program further causing the computer

15   controller to transmit control signals to the <u>plurality of smart</u> devices based on the sets of

16   information received from the remote database <u>, wherein the control signals functionally</u>

17   <u>operate the plurality of smart devices</u>.

1   23.   (Amended) The system of claim 20, wherein each of the plurality of <u>smart</u>

2   devices includes an identifier and wherein the computer controller accesses a record in the

3   remote database that contains information specific to one of the plurality of <u>smart</u> devices by

4   transmitting the identifier.